

REMARKS

In the Office Action, claims 1, 9-11, 14, and 15 stand rejected under 35 U.S.C. § 102(b) as anticipated by United States Patent No. 4,681,488 (“Markusson”), and claims 1-8 and 12-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Markusson in view of United States Patent No. 4,274,766 (“Raupp”). Applicants herein amend claim 1 and cancel claim 13. Applicants respectfully traverse the rejections as follows.

§ 102(b) Rejection of Claims 1, 9-11, 14, and 15

Applicants respectfully submit that a claim rejection based on anticipation under § 102(b) requires that a single prior art reference disclose each and every element of the claimed invention. *See* MPEP § 2131 (stating that a claim is anticipated only if each and every element as set forth in the claim is disclosed in a single prior art reference). As the Examiner concedes at page 3 of the Office Action, Markusson fails to disclose the feature of a “convex cutting edge” as recited in claim 1. Accordingly, Applicants submit that Markusson fails to anticipate claims 1, 9-11, 14, and 15 that all require “convex cutting edges.” Applicants therefore respectfully request that the § 102(b) rejection of claims 1, 9-11, 14, and 15 be withdrawn.

§ 103(a) Rejection of Claims 1-8 and 12-14

Applicants have amended claim 1 to include “nose corners connecting the at least four convex cutting edges.” This feature was formerly claimed in dependent claim 13, now canceled.

Applicants submit that a *prima facie* case of obviousness under 35 U.S.C. §103(a) requires, among other things, that the cited references, when

combined, teach or suggest every element of the claim. See MPEP §2142. Applicants submit that the Office has not established a *prima facie* case of obviousness because not all elements of claim 1 are taught or suggested by Markusson and Raupp. More specifically, Applicants submit that Markusson and Raupp, either alone or in combination, fail to teach or suggest, among other things, “at least four convex cutting edges; and nose corners connecting the at least four convex cutting edges,” as recited in claim 1.

Applicants submit that Markusson discloses a polygon-shaped cutting insert that includes planar upper and lower surfaces, four straight cutting edges, and four modified nose corners connecting the four cutting edges. As noted above and conceded by the Examiner, Markusson fails to disclose “at least four convex cutting edges,” as recited in claim 1.

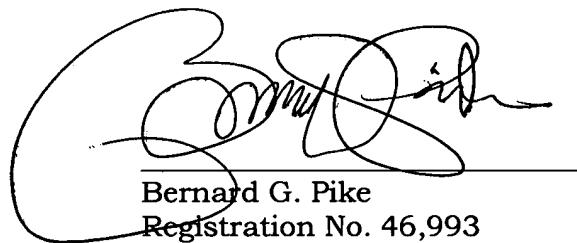
Applicants submit that Raupp discloses a polygon-shaped cutting insert for use in a cutter body assembly. Applying the same standard nomenclature to identify the cutting insert features of Markusson, Applicants submit that the cutting insert disclosed by Raupp is polygon-shaped cutting insert that includes planar upper and lower surfaces, four straight cutting edges, and four large-radius nose corners connecting the four cutting edges. Applicants therefore respectfully disagree with the Examiner’s contention at page 3 of the Office Action that Raupp “teaches that it is well known in the art to use convex cutting edges (37) in a cutting insert assembly.” Applicants submit that it is well known to use circular nose corners in a cutting insert assembly. Therefore, the combination of Markusson and Raupp does not result in the claimed invention, but rather a “polygon-shaped cutting insert that includes planar upper and lower surfaces, four straight cutting edges, and four large-radius modified nose corners connecting the four cutting edges.”

Further, Applicants submit that modifying the polygon-shaped cutting insert of Markusson to include four large-radius nose corners as disclosed by Raupp would fail to provide the advantages of the convex cutting edges identified in the present application. In particular, Raupp discloses that the radius of curvature for each of the large-radius nose corners is limited to less than the radius of curvature for the inscribed circle. *See, e.g.* column 3, lines 44-50 and Figure 7. There is no such limitation on the design of the convex cutting edges of the present invention. Embodiments of the present invention comprising “at least four convex cutting edges; and nose corners connecting the at least four convex cutting edges” have the advantages of both a polygon-shaped and round-shaped cutting inserts as described in the specification.

CONCLUSION

Applicants believe that they have fully addressed each basis for rejection under § 102(b) and § 103(a). Reconsideration of the claims of the subject application and issuance of a Notice of Allowability is respectfully requested. Should the Examiner have any remaining concerns, he is requested to contact the undersigned at the telephone number below so that those concerns may be addressed without the necessity for issuing an additional Office Action.

Respectfully submitted,



Bernard G. Pike
Registration No. 46,993

Kirkpatrick & Lockhart LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222-2312

Telephone: (412) 355-8620
Facsimile: (412) 355-6501

Customer No.: 25074